AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listing of claims in the above-identified application:

1. (previously presented) An interferrometric fiber optic gyro (IFOG), comprising:

a light source;

a sensing loop assembly in communication with the light source;

a wave division multiplexer/detector assembly in communication with the light source that is used for wavelength control; and

a narrowband fiber Bragg grating (FBG) not associated directly with the light source and in communication with the light source and the wavelength division multiplexer/detector assembly to compensate for errors in the wavelength division multiplexer/detector assembly and such that at least a portion of light from the light source enters the wave division multiplexer/detector assembly without impinging upon the narrowband FBG.

2. (original) The IFOG of claim 1, wherein the narrowband FBG is a reflection FBG.

3. (currently amended) The IFOG of claim 1, wherein the narrowband FBG is in communication with the light source via a splitter.

4. (original) The IFOG of claim 1, wherein only a single splitter is employed to provide light, which is subjected to the narrowband FBG, to the wave division multiplexer/detector assembly.

5. (original) The IFOG of claim 4, wherein the single splitter is a 50/50 splitter.

6. (original) The IFOG of claim 4, wherein the 50/50 splitter is disposed between the fiber light source and the sensing loop assembly.

7. (original) The IFOG of claim 1, wherein a plurality of splitters are employed to provide light, which is subjected to the narrowband FBG, to the wavelength division multiplexer/detector assembly.

8. (original) The IFOG of claim 1, further comprising a first switch to switch the narrowband FBG in and out of an optical circuit.

9. (original) The IFOG of claim 8, further comprising a second switch to switch an input to the wavelength division multiplexer/detector assembly.

10. (original) The IFOG of claim 1, further comprising a circulator disposed between the light source and the narrowband FBG.

11. (currently amended) An interferrometric fiber optic gyro (IFOG), comprising:

a light source;

a sensing loop assembly in communication with the light source via a first and a second splitter;

a wavelength division multiplexer/detector assembly, which is used for wavelength control, in communication with the light source via the first splitter;

a photodetector, for detecting a Sagnac effect resulting from rotation of at least a sensing loop of the sensing loop assembly, in communication with the sensing loop assembly via the second splitter; and

a narrowband reflection fiber Bragg grating (FBG) in communication with at least the fiber light source and the wave division multiplexer/detector assembly via the first splitter and such that at least a portion of light from the light source enters the wave division multiplexer/detector assembly without impinging upon the narrowband reflection ~~fiber grating~~ (FBG).

12. (original) The IFOG of claim 11, wherein the first splitter is a 50/50 splitter.

13. (original) The IFOG of claim 11, wherein the second splitter is a 50/50 splitter.

14. (original) The IFOG of claim 11, wherein the reflection FBG has a bandwidth of about 0.5 nm.

15. (currently amended) An interferrometric fiber optic gyro (IFOG), comprising:

a light source;

a sensing loop assembly in communication with the light source via a circulator and a tap coupler;

a wavelength division multiplexer/detector assembly, which is used for wavelength control, in communication with the light source via the circulator, the wavelength division multiplexer/detector assembly comprising a pair of matched photodiodes that are arranged to deliver sum and differential signals; and

a narrowband reflection fiber Bragg grating (FBG) in communication with the tap coupler such that the narrowband reflection FBG is optically coupled to both the light source and the wavelength division multiplexer/detector assembly and such that at least a portion of light from the light source enters the wave division multiplexer/detector assembly without impinging upon the narrowband reflection ~~fiber grating~~ (FBG).

16. (original) The IFOG of claim 15, further comprising a switch to switch the narrowband reflection FBG in and out of an optical circuit.

17. (original) The IFOG of claim 15, wherein the tap coupler has 80% and 20% ports.

18. (original) The IFOG of claim 17, wherein the sensing loop assembly is connected to the 80% port.

19. (original) The IFOG of claim 15, wherein the narrowband reflection FBG has a bandwidth of about 0.5 nm.

20. (currently amended) An interferrometric fiber optic gyro (IFOG), comprising:

a light source optically coupled to a sensing loop assembly via a first tap coupler and a circulator;

a second tap coupler optically coupled to the first tap coupler a third tap coupler and a wavelength division multiplexer/detector that is used for wavelength control;

the second tap coupler further being optically coupled to the circulator and a photodiode that is operable to detect a Sagnac effect resulting from rotation of at least a sensing loop of the sensing loop assembly; and

a narrowband reflection fiber Bragg grating (FBG) in communication with the first tap coupler such that the narrowband reflection FBG is optically coupled to both the light source and the wavelength division multiplexer/detector assembly and such that at least a portion of light from the light source enters the wave division multiplexer/detector assembly without impinging upon the narrowband reflection ~~fiber grating~~ (FBG).

21. (original) The IFOG of claim 20, wherein the narrowband FBG has a bandwidth of about 0.5 nm.

22. (previously presented) An interferrometric fiber optic gyro (IFOG), comprising:

a light source;

a sensing loop assembly in communication with the light source;

a wavelength division multiplexer/detector assembly in communication with the light source that is used for wavelength control; and

a narrowband fiber Bragg grating (FBG) not associated directly with the light source and in communication with the light source and to compensate for errors in the wavelength division multiplexer/detector assembly and such that at least a portion of light from the light source enters the wave division multiplexer/detector assembly without impinging upon the narrowband FBG.